Amendments to the Specification

Please replace the paragraph beginning at page 4, line 5, with the following rewritten paragraph:

In one embodiment, processor 102 may generate a timing signal to provide timing information to coil circuit 110. In one embodiment, processor 102 may receive the zero-crossing signal from zero-crossing detector 106. Processor 102 may use the zero-crossing signal to determine a reference time. The reference time may comprise the leading edge or falling edge of a pulse in the zero-crossing signal. Processor 102 may use the reference time to interpolate a zero-crossing period for the AC input voltage waveform. For example, the zero-crossing period for an AC input voltage waveform typically used in the United States may correspond to approximately 60 Hertz (Hz). In another example, the zero-crossing period for an AC input voltage waveform typically used in Europe may correspond to approximately 50 Hz. Once processor 102 determines the zero-crossing period, processor 102 may retrieve a plurality of delay times corresponding to the zero-crossing period. The delay times may be predetermined and stored as part of a timing table in memory 104 and retrieved via line 112. The delay times may also be calculated during run time using the appropriate equations. Processor 102 may use the retrieved delay times and zero-crossings to generate a timing signal for coil circuit 110. The delay times and timing signal ~~may be~~ are described in more detail with reference to FIGS. 2-6. Processor 102 may send the timing signal to coil circuit 110 via line 120.

Please replace the paragraph beginning at page 6, line 14, with the following rewritten paragraph:

FIGS. 3A and 3B illustrate graphs showing current peak amplitudes for a pair of delay times in accordance with one embodiment. As shown in FIGS. 3A and 3B, switch 208 may be closed at a precise delay time (angle) relative to the zero crossing for the AC input voltage waveform to start coil current for coil 210. Switch 208 may naturally commutate back to an open state over a period of time, thereby preventing the AC input voltage from being applied to coil 210. The result is a coil current having a peak amplitude over a given time period. As shown in FIGS. 3A and 3B, an early firing time produces a higher peak amplitude than a later firing time. For example, FIG. 3A illustrates a graph of the coil current for coil 210 when switch 208 is closed after a 3 millisecond (ms) delay from the initial zero-crossing of an AC input voltage waveform. Coil current may be allowed to flow through coil 210, with the coil

current having a peak amplitude of approximately 38 Amperes (Amps). By way of contrast, FIG. 3B illustrates a graph of the coil current for coil 210 when switch 208 is closed after a 6 ms delay from the initial zero-crossing of the AC input voltage waveform. The peak amplitude for the resulting coil current in this case may be lower ~~then~~ than shown in FIG. 3A, or approximately 16 Amps.